UNITED STATES PATENT AND TRADEMARK OFFICE

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>04 June 2008</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,7-10,12,13,17,21-24,26-29,31,40,41,43,44 and 46-50</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1,7-10,12,13,17,21-24,26-29,31,40,41,43,44 and 46-50</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Response to Arguments

1.   Applicant's arguments filed 6/4/2008 have been fully considered but they are not

persuasive.

Applicant asserts that the Humbard reference is not qualified as prior art to the instant

application since the instant application claims priority from earlier US patent application

numbers 09/378,184 and 09/378,270, both filed on 8/20/1999. In response, the instant

application, which is CIP of 09/378,184 and CIP of 09/378,270, was filed on 2/5/2002. However,

the application 09/378,184 was abandoned on 9/7/2001 and the application 09/378,270 was

abandoned on 11/14/2001. Thus, the instant application was filed <u>after</u> abandonment of the

earlier applications 09/378,184 and 09/378,270. Accordingly, the instant application is not

entitled to the benefits of the filing date of the earlier applications 09/378,184 and 09/378,270.

See MPEP 201.08 [R-3]. Therefore, the Humbard reference of the record is qualified as prior art

for rejection of the claims.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 17, 31, 40, 41, 43, 44, and 46-50 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Yeo et al. (US 6,870,573 B2) in view of Humbard et al. (US 20020069415

A1) and further in view of Sundqvist et al. (US 6,549,669 B1).

Regarding claim 1, Yeo teaches a method comprising: providing a plurality of individual

image areas in an EPG display (presents in rows as shown in figure 6); receiving a user

selection corresponding to a selected channel and a first to display in one of the individual

image areas (e.g., when a user selects a particular row corresponding to a particular channel -

see col. 8, lines 28-30); capturing a plurality of snapshots snapshot from the video stream

(capturing video frames - col. 5, lines 52-55; col. 6, lines 13-17); identifying a first snapshot from

the plurality of snapshots captured from the video stream (determining which video frames from

video stream should be presented in a visual program summary - see col. 8, lines 6-25);

converting the first snapshot captured into a reduced image of real-time programming (see col.

7, line 65 to col. 8, line 5; col. 8, lines 17-25); and displaying the reduced image of real-time

programming in the first of the individual image areas, wherein the reduced video image is

associated with the selected channel (as shown in figure 6; col. 8, lines 17-23 and 28-32).

With further regarding claim 48, Yeo discloses identifying a segment of the video stream

(video frames or short video) corresponding to the selected channel (see col. 5, lines 52-58; col.

6, lines 13-15); converting the segment of the video stream to a reduced resolution video stream

(col. 7, line 65 to col. 8, line 5; col. 8, lines 17-25); and displaying the reduced resolution video

stream in the first of the individual image areas (as shown in figure 6; col. 8, lines 17-23 and 28-

32). Yeo teaches displaying the video frames or the reduced video images in the rows as shown

in figure 6. Yeo does not teach displaying a graphical representation of a polyhedron, displaying

the reduced image of real-time programming or the reduced resolution video stream on a side of

the graphical representation of the polyhedron, and displaying an additional reduced video

image corresponding to a different selected channel on a different side of the polyhedron as

recited in claims 1, 40, and 48.

However, Humbard teaches an electronic navigator comprising rotatable cubes, wherein

each of the rotatable cubes includes graphics or video images from the television programs

displayed on a face of the cube. Each cube may represent a specific genre of programs. The

faces of the cubes represent specific programs or shows of the channels. See figure 2a-2b;

0024-0027, 0045, 0049. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by displaying a graphical representation of a polyhedron, displaying the reduced image of real-time programming or the reduced resolution video stream on a side of the graphical representation of the polyhedron, and displaying an additional reduced video image corresponding to a different selected channel on a different side of the polyhedron as taught by Humbard in order to present information to viewers in a more visually appealing manner.

Yeo discloses selecting a channel (see col. 8, lines 28-32), but does not explicitly disclose detecting a scene change in the video stream of a channel/program. However Sundqvist discloses analyzing the received video data to determine a scene change, for example, from scene A to scene B to further exchange video data with a memory to provide for smooth switching among multiple scenes in video (see col. 4, lines 30-57 and figure 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by detecting a scene change in a video stream of a program to exchange video data with a memory as disclosed by Sundqvist in order to provide for smooth switching among multiple scenes in video.

Regarding claim 17, Yeo teaches apparatus comprising: a tuner (310 - figure 3) configured to tune to a selected channel to receive a video stream (see col. 8, lines 28-32; col. 5, lines 55-58); a shutter function (320 - figure 3) configured to capture a plurality snapshots from the video stream (capturing video frames - col. 5, lines 55-58; col. 6, lines 13-15); an image improver (330 - figure 3) configured to identify a first snapshot from the plurality of snapshots captured from the video stream (determining which video frames should be presented in a visual program summary - see col. 8, lines 6-25); and a display (viewer's display) configured to display an EPG comprising a plurality of individual image areas (presents in rows as shown in

figure 6); and display the first snapshot in the first individual images area, wherein the first

snapshot is associated with the selected channel (as shown in figure 6; col. 8, lines 17-23 and

28-32).

With further regarding claim 49, Yeo discloses identifying a segment of the video stream

(video frames or short video) corresponding to the selected channel (see col. 5, lines 52-58; col.

6, lines 13-15); converting the segment of the video stream to a reduced resolution video stream

(col. 7, line 65 to col. 8, line 5; col. 8, lines 17-25); and displaying the reduced resolution video

stream in the first of the individual image areas (as shown in figure 6; col. 8, lines 17-23 and 28-

32). Yeo teaches displaying the video frames or the reduced video images in the rows as shown

in figure 6. Yeo does not teach displaying a graphical representation of a polyhedron, displaying

the first snapshot on a side of the graphical representation of the polyhedron, and displaying an

additional image corresponding to a most presentable snapshot for a different selected channel

on a different side of the polyhedron as recited in claims 17, 43, and 49.

However, Humbard teaches an electronic navigator comprising rotatable cubes, wherein

each of the rotatable cubes includes graphics or video images from the television programs

displayed on a face of the cube. Each cube may represent a specific genre of programs. The

faces of the cubes represent specific programs or shows of the channels. See figure 2a-2b;

0024-0027, 0045, 0049. Therefore, it would have been obvious to one of ordinary skill in the art

at the time the invention was made to modify the system of Yeo by displaying a graphical

representation of a polyhedron, displaying the reduced image of real-time programming or the

reduced resolution video stream on a side of the graphical representation of the polyhedron,

and displaying an additional reduced video image corresponding to a different selected channel

on a different side of the polyhedron as taught by Humbard in order to present information to

viewers in a more visually appealing manner.

Yeo does not explicitly disclose a scene detector to detect a scene change in the video stream. However Sundqvist discloses scene change detector 71 analyzes the received video data to determine a scene change, for example, from scene A to scene B to further exchange video data with a memory to provide for smooth switching among multiple scenes in video (see col. 4, lines 30-57 and figure 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by detecting a scene change in a video stream to exchange video data with a memory as disclosed by Sundqvist in order to provide for smooth switching among multiple scenes in video.

Claims 31, 46, and 50 recite similar limitations of claims 1, 40, and 48. Therefore, claims 31, 46, and 50 are rejected for the same reasons as addressed.

Regarding claims 41, 44 and 47, Yeo as modified by Humbard further teaches that receiving a user request to rotate the polyhedron to display information corresponding to the different selected channel (e.g.., when the user presses arrow key of keys 103 to rotate the cube to display information corresponding to a particular program/show of a particular channel - see Humbard: 0025-0027, 0049); and updating the EPG display by rotating the graphical representation of the polyhedron so that a greater portion of the polyhedron side corresponding to the different selected channel is displayed in the first of the individual image areas (rotating the cube to provide the viewer the face of the cube presenting the selected program/show of the channel - see 0049).

4.   Claims 7-9, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over and further in view of Yeo et al. (US 6,870,573 B2) in view of Humbard et al. (US 20020069415 A1) and Sundqvist et al. (US 6,549,669 B1) and further in view of Lin (US 7130864 B2).

Yeo teaches presenting the selected video frames or snapshots of the selected channel in a row as shown in figure 6 (see figure 6). Yeo does not explicitly teach comparing contrast levels, brightness levels, or color saturation levels among the snapshots and determining the most presentable snapshot when the most presentable snapshot has a best contrast, a median brightness, or a highest color saturation. However, Lin discloses a method and system for accessing a collection of images in a storage includes using a weighted quality metric to select the best images to the user, wherein the quality metric indicates the color, brightness, contrast of the image. See col. 4, lines 22-39. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by selecting the best images based on the quality metric included the color, brightness, and contrast as taught by Lin in order to provide the images with the highest quality for displaying.

5.   Claims 10, 12, 13, 24, 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yeo et al. (US 6,870,573 B2) in view of Humbard et al. (US 20020069415 A1) and Sundqvist et al. (US 6,549,669 B1) and further in view of Sendelweck (US 4,963,979 A).

With respect to claims 10, 12, 13, 24, 26, and 28, Yeo does not teach that the video image or snapshot is filtered to change the display characteristics of the snapshot, wherein the snapshot is filtered by one of enhancing or reducing a contrast to the snapshot, and wherein the snapshot is filtered by a one of enhancing or reducing a color saturation of the snapshot. However, Sendelweck teaches a processing image for displaying included filtering means to enhance the sharpness and color of the image (see col. 1, lines 62-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by having filtering means to enhance the sharpness and color of the images as taught by Sendelweck in order to provide the best quality of images for viewing.

With respect to claims 27 and 29, Yeo does not explicitly teach reducing the snapshot's contrast and the snapshot's color saturation. Official Notice is taken that reducing or adjusting contrast or color saturation of the image to improve the quality of image. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Yeo by adjusting or reducing the image's contrast and the image's color saturation in order to improve the quality of the images.

Conclusion

6.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NGOC K. VU whose telephone number is (571)272-7306. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
Application Information Retrieval (PAIR) system. Status information for published applications
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/NGOC K. VU/
Primary Examiner, Art Unit 2623